

U.S. Patent Application Serial No. 10/648,844  
Amendment and Response dated March 12, 2007  
Office Action dated October 12, 2006

**Amendments to the Drawings:**

The attached 6 Replacement Sheets of formal drawings are presented to replace the informal drawing sheets which were originally filed in this application. It is believed that the formal drawings do not involve any introduction of new matter.

Attachment: 6 Replacement Sheets.

### **REMARKS**

The Official Action dated October 12, 2006, has been carefully considered. Consideration of the changes and remarks presented herein and reconsideration of the rejections are respectfully requested. Claims 11 and 17-18 have been amended. Claims 1-10, 12-16 and 19-20 have been cancelled. Claims 21-37 have been added, and depend from claim 11, therefore Applicant believes that these claims should be examined, however if the Examiner chooses not to examine these claims and requests a restriction, Applicant respectfully requests that these claims be rejoined once independent claim 11 has been allowed. Support for the amendments can be found in the specification and claims as originally filed (for example, see specification at p. 18, lines 1-3). It is believed that these changes do not involve any introduction of new matter, and thereby entry is believed to be in order and is respectfully requested. Claims 15-28 now depend from claim 1, therefore Applicants traverse this election on the basis of the Applicants' belief that it would not be unreasonably burdensome for the Examiner to consider all of the claims as originally filed. In the event that the restriction requirement is maintained, Applicants request rejoinder of claims 15-28 when claim 1 is allowed. Claims 11, 17-18 and 21-37 remain in the application for consideration.

In the Official Action, the drawings were objected to for informalities. By present amendment, 6 Replacement Sheets of formal drawings are presented to replace the informal drawing sheets which were originally filed in this application. It is believed that these changes do not involve any introduction of new matter, whereby entry is believed to be in order. As such, Applicant believes the objections to the drawings have been overcome and respectfully requests reconsideration.

In the Official Action, claim 11 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In light of the amendments to claim 11, Applicant believes the rejection has been overcome. As such, reconsideration is respectfully requested.

In the Official Action, claim 11 was rejected under 35 U.S.C. § 102(b) as being anticipated by Svenson et al (U.S. Patent No. 5,409,008). The Examiner asserts that Svenson et al teach a hollow lumen, a first electrode positioned on a distal end of the catheter, and a second electrode spaced proximally from the first electrode and positioned on the catheter. Claim 11 was also rejected under 35 U.S.C. § 102(b) as being anticipated by Cohen (U.S. Patent No.

5,336,252). The Examiner asserts that Cohen teaches a hollow lumen, a first electrode and a second electrode, wherein the catheter is inserted into a sheath for a transseptal puncture. Finally, claim 11 was also rejected under 35 U.S.C. § 102(e) as being anticipated by Swanson et al (U.S. Published Patent Application No. 2002/0161422). The Examiner asserts that Swanson et al teach a hollow lumen and a first electrode and a second electrode, wherein the electrodes include a distal electrode with an electrode proximally spaced from the distal electrode.

However, as will be set forth in detail below, it is submitted that the catheter set forth in claim 11 is not anticipated by and is patentably distinguishable over Svenson et al, Cohen and Swanson et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

Svenson et al disclose a mapping catheter which includes a polymer member, bipolar sensing electrodes placed on a distal end of the polymer member, a spaced unipolar electrode at a spaced distance from the bipolar electrodes and a lumen within the polymer member (col: 2, lines 30-35).

Cohen discloses a system and method for implanting electric leads in the pericardial space of the heart (abstract).

Finally, Swanson et al teach a catheter assembly which includes a flexible catheter tube with a proximal end and a distal end and a multiple electrode structure attached to the distal end of the catheter tube (page 4, ¶ 0124 and Fig. 2A).

Rejection for anticipation or lack of novelty requires, as the first step in the query, that all elements of the claimed invention be described in single reference. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989), *cert. denied*, 493 U.S.P.Q.853 (1989). Independent claim 11 recites a catheter which includes a first electrode positioned at the distal end of the catheter and a second electrode positioned on the catheter and spaced proximally from the first electrode, wherein the first electrode and the second electrode are both configured to concurrently obtain unipolar and bipolar measurements to provide for the electrophysiology mapping.

As noted above, Svenson et al in fact requires bipolar sensing electrodes and a unipolar electrode but does not denote that the electrodes individually are capable of providing both unipolar and bipolar measurements. Therefore, Svenson et al fail to teach the catheter as recited in independent claim 11. Cohen teaches anchoring defibrillation electrodes on or very close to

the epicardium, but does not provide for a first electrode and a second electrode where each electrode is individually capable of providing both unipolar and bipolar measurements.

Therefore, Cohen fails to teach the catheter as recited in independent claim 11. Finally, Swanson et al fail to teach having electrodes capable of concurrently obtaining both unipolar and bipolar measurements to provide for electrophysiology mapping, but rather teaches one embodiment where electrode elements 28 can be used in a uni-polar mode and an alternate embodiment wherein the electrode elements can be used in a bipolar mode (page 5, ¶ 0135). Moreover, Swanson et al do not teach that any measurements obtained from the electrodes can be used to provide for the electrophysiology mapping. Therefore, Swanson et al fail to teach the catheter as recited in independent claim 11.

In the Official Action, claim 17 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Svenson et al, Cohen or Swanson et al. The Examiner asserted that Svenson et al, Cohen and Swanson et al all disclose the claimed invention except for the second electrode spaced from the first electrode by a distance of between about 2 and 4 mm. The Examiner contends that it would have been obvious to one having ordinary skill in the art to provide a spacing of 2 mm to 4 mm.

Claim 18 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over Svenson et al or Swanson et al. The Examiner noted that neither Svenson et al nor Swanson et al disclose attaching cables to a device for recording electrograms, but the Examiner contends that nothing prevents the disclosed cables from doing so. Thus, the Examiner asserted that Svenson et al and Swanson et al's inventions are fully capable of being attached to a device for recording electrograms.

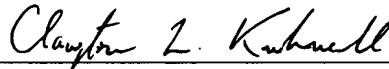
Applicant believes that the catheters as defined by claim 17 is nonobvious and patentably distinguishable over Svenson et al, Cohen and Swanson et al. Accordingly, the rejection is traversed and reconsideration is respectfully requested. Moreover, Applicant believes that the catheter as defined by claim 18 is also nonobvious and patentably distinguishable over Svenson et al and Swanson et al.

References relied upon to support a rejection under 35 U.S.C. § 103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public. *In re Payne*, 203 U.S.P.Q. 245 (CCPA 1979). As noted above, Svenson et al, Cohen and Swanson et al fail to teach or suggest a catheter as recited in independent claim 11, from which claims 17 and 18 depend. Particularly, Svenson et al, Cohen and Swanson et al fail to teach or suggest having a catheter which includes a first electrode positioned at the distal end of the catheter and a second electrode positioned

on the catheter and spaced proximally from the first electrode, wherein the first electrode and the second electrode are both configured to concurrently obtain unipolar and bipolar measurements to provide for the electrophysiology mapping. As such, the limitations of independent claim 11, are not taught by Svenson et al, Cohen or Swanson et al. It is therefore submitted, that the presently claimed catheters of claims 17 and 18 are nonobvious over either Svenson et al, Cohen or Swanson et al whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

It is believed that the above amendments and remarks represent a complete response to the objections and rejections under 35 U.S.C. §§ 102, 103 and 112, second paragraph, and as such, place the present application having claims 11, 17-18 and 21-37 in condition for allowance. Reconsideration and an early allowance are requested.

Respectfully Submitted,



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Clayton L. Kuhnell  
Registration No. 48,691  
Dinsmore & Shohl, LLP  
1900 Chemed Center  
255 East Fifth Street  
Cincinnati, Ohio 45202  
(513) 977-8377